

CHAPTER 8

Finding Your Own Way to Implement P2

INTRODUCTION

This *Guide* has presented three approaches to implementing a P2 program: traditional based, EMS based, and quality based. All three approaches can be improved by using the process characterization, problem-solving, and decision-making tools that are described in Chapter 4. Your organization may already have some type of P2 program in place. It may be seeking only to improve its existing program or may not feel that there is time to implement a brand new program following any of these three approaches. This chapter will discuss some of the items that are covered in these approaches to provide you with some ideas for planning and implementing a P2 program that is specific to your organization's requirements and culture. Let's take a look at the program elements in each of these approaches to see where they have commonality. From this analysis, the elements that your organization should strive for as it implements the P2 program may be apparent.

We also will look at the various planning elements that were described in Chapter 3 of this *Guide* and the concept of *guiding principles* or *core values*. It will be important to see how these mesh with or remain separate from the implementation elements. The implementation elements that will be covered in this chapter are as follows:

- Extent of planning
- Leadership
- P2 goal setting
- Focus on results
- Information and analysis
- Process management
- Employee participation
- Focus on interested parties
- Guiding principles or core values
- P2 program elements

Each of these elements should be addressed in the P2 program.

EXTENT OF PLANNING

The three approaches run the full gamut of planning. You will need to determine the effort your organization wants to devote to planning as you seek to implement or improve the P2 program.

Includes:

- ☐ Introduction
- ☐ Extent of Planning
- ☐ Leadership
- ☐ Setting P2 Goals
- ☐ Focus on Results
- ☐ Information and Analysis
- ☐ Process Management
- ☐ Employee Participation
- ☐ Focus on Interested Parties
- ☐ Guiding Principles
- ☐ P2 Program Elements
- ☐ Now It's Your Turn

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This chapter will discuss some of the items that are covered in these approaches to provide you with some ideas for planning and implementing a P2 program that is specific to your organization's requirements and culture.

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There is some upfront planning involved in the traditional P2 program. It is modeled around assessments that are conducted in the workplace. Adding process mapping to this approach will help find more opportunities for P2. This does not greatly increase the amount of planning in the process, however. When this program was prepared in the late 1980s, many people saw a need to just get in there and get started. A program *can* be developed from these initial efforts. What happened is that the initial efforts ran out of steam, since there was no program to guide continual improvement. Once the easy issues were addressed, it was difficult for the P2 efforts to continue.

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In the EMS-based implementation P2 program, much of the planning is specified in the guidance set forth in ISO 14001 or other EMS guidance documents. You will recall that the EMS implementation involves employees and has action plan requirements. Also, recall that the EMS implementation includes management involvement and continual improvement. In setting the EMS objectives and targets, the organization must consider the following items: (1) its significant environmental impacts, (2) legal and other requirements, (3) the views of external parties and societal concerns, (4) technical options and operational feasibility, (5) financial requirements for paybacks, and (6) business requirements for marketability and profitability. This involves planning. Planning is very important in the EMS approach to P2. While there is no requirement that the EMS program be integrated into the strategic planning of the organization, as shown in Chapter 6 the program would be much more successful if it was so integrated.

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The quality-based P2 program involves planning in the following areas:

1. Strategy
2. Formal action
3. Integration and implementation

This approach to P2 places more emphasis on the recognition of environmental matters in the organization's strategic plan. Even if the organization does not have a formal strategic planning capability, environmental thinking must make it into the executive suite. An entire part of the evaluation is dedicated to strategic planning. Some questions to ask of the P2 planning efforts in this regard may be found in Box 8-1. These questions, which also can be used in the traditional and EMS approaches, can help align the P2 program with the strategic thrust of your organization. Any progress made in this direction will help integrate P2 into mainstream activities.

Box 8-1. Questions to Ask About the Planning Component

Consider strategic planning for environmental improvement as you ask the following questions (Reference 8-1). These questions are designed to ask “**how**” so that you can compare your organization’s performance to others.

strategic planning

How does your organization:

- Use information from the environmental management system in other organizational planning initiatives?
- Consider the long-term environmental impact of the business on its quest for sustainability?
- Anticipate and mediate external environmental impacts?
- Include employees in environmental planning?
- Involve vendors, suppliers, customers, and others?

Consider formal action planning as you ask these questions:

How are:

action planning

- Formal action plans developed to support process analysis and improvement (P2) efforts?
- Employees included in the development of action plans?
- Suppliers, vendors, customers, and other interested parties included in the development of action plans?
- Action plans assessed and improved on from year to year?

To determine if your P2 program fosters integration and implementation with other organizational programs, ask these questions:

How are:

*integration and implementation
with other organizational
programs*

- Action plans implemented, tracked, modified (for continual improvement), and communicated to all interested parties?
- The action plans linked to the strategic planning process of the organization?
- Resources aligned to support improvement (P2) efforts?
- All the results from the programs disseminated to support organizational learning and improvement of the environmental management process?
- Environmental management processes formally maintained and improved?

The quality-based P2 approach and the EMS approach require written action plans. The EMS-based approach requires environmental management programs (EMPs) as written action plans. These documents are used to track progress made during the year on all scheduled P2 projects and activities. They are auditable by independent third parties. The Systems Approach tools help gather the information needed for comprehensive action plans. At the end of the year, it is possible to perform a “lessons learned” review of each of the action plans or EMPs and a decision can be reached on what to do in the following year.

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The final aspect of the quality- and EMS-based P2 approaches is the actual integration and implementation of P2 activities with other organizational programs. It is important that P2 activities not be restricted to the environmental professionals in an organization. Employee teams from different departments need to be involved. The oversight committee should be composed of senior managers representing different functions within the organization. Whenever possible, it is prudent to look at their planned activities to see which ones have potential for P2 involvement. In this manner, the planned integration will be much more effective.

An emphasis on planning is important no matter which approach your organization uses. Although your organization may choose not to have planning dominate your P2 program's implementation, you should seek to improve your planning efforts each year by asking the questions provided and enhancing the program incrementally. Your organization could gradually increase the level of planning by answering those questions. In this manner, your organization will be integrating the P2 program into the core business practices.

LEADERSHIP

All the implementation models presented require a policy statement that is endorsed by the top management of the organization.

All the implementation models presented require a policy statement that is endorsed by the top management of the organization. Some important differences exist, however.

In the traditional approach, a "top-down" focus was encouraged. Management approval was sought before the P2 program was started. This commitment to the program was communicated to the workforce using the policy statement. Management names the P2 task force. Although management often saw P2 reports and success stories, this information loop sometimes did not provide for strong support for continual improvement.

The EMS-based Implementation Approach also seeks to have top management periodically review EMS implementation and effectiveness. Experience has shown clearly that program success is largely dependent on maintaining the involvement of senior management. The EMS is a management system that allows organizations to address the environmental issues in a systematic, organized fashion based on continual improvement—just like any other area of the organization. The EMS approach described in this *Guide* focuses on all management issues, including attainment of objectives, completion of corrective actions, effectiveness of policy, and cost-driven targets.

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ership. Senior leaders must demonstrate a commitment in this approach. Refer to the questions in Box 8-2 to see how to reach best-in-class status in this area. Striving to get positive answers to these questions will help the organization improve the management component of the P2 program.

Box 8-2. Questions to Ask About the Leadership Component

How does senior management:

- Demonstrate commitment to continual environmental improvement on par with other major organizational goals?
- Conduct proactive communication with all interested parties?
- Provide support for continual environmental improvement?
- Assure that continual environmental improvement is integrated, reviewed, and tracked?

Ask these questions about the community leadership components of the P2 program and **how** your organization accomplishes the following tasks.

How does your organization:

- Initiate and support environmental protection and sustainability efforts in the community?
- Seek to understand environmental issues specific to the community and address those issues with strategies, actions, and collaborative efforts?
- Support mentoring of other organizations in the community to promote P2 and continual improvement?
- Set affirmative procurement goals?
- Communicate your environmental performance to the community?

Many senior managers also recognize the importance of being a good corporate citizen in the local community. In the quality approach, good corporate citizenship goes beyond giving to local charities. The P2 ideals of the organization need to be promoted to all the local interested parties as a demonstration of the senior leadership's commitment to these ideals.

Senior leadership (i.e., those people to whom the environmental manager reports) must "walk the talk" to provide true leadership to the P2 program. A good "bottom-up" program with a results focus may help senior management go this extra distance. The literature on quality improvement and change management stresses the importance of having serious commitment from top management. Finding a way to gain this advantage will promote the implementation of your organization's P2 program.

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SETTING P2 GOALS

In the traditional approach, the purpose of the P2 program is to meet these pre-set goals.

The EMS approach selects significant aspects and sets objectives and targets after studying the environmental impacts of the organization's activities, products, and services. Objectives are the overall environmental goals that an organization sets out to achieve.

In the quality-based P2 approach, the goals are not formally set until after the action plans are prepared.

Many believe that stretch goals of zero waste and emissions are best since it will take both continual improvement and some breakthrough thinking to get there.

In the traditional approach, senior management sets the goals for P2 *before* any formal information is gathered. This is based on the philosophy of “management by objectives.” The purpose of the P2 program is to meet these pre-set goals. Much of the literature on goal setting supports this approach.

The EMS approach selects significant aspects and sets objectives and targets after studying the environmental impacts of the organization's activities, products, and services. Objectives are the overall environmental goals that an organization sets out to achieve. Action plans (EMPs) are written to meet the goals and objectives in the planned time frame.

In the quality-based P2 approach, the goals are not formally set until after the action plans are prepared. Each action plan has performance goals set for each step. The sum of the performance goals listed in the action plans are the goals for the period of time set forth in the planning sequence (i.e., typically one year). It is possible to have some action plans cover a longer time span, so that two-year goals can be set. It is important to set only continual improvement goals. Many believe that stretch goals of zero waste and emissions and continual improvement will increase the likelihood that significant strides will be made.

FOCUS ON RESULTS

Results will demonstrate whether goals have been met. Continual improvement is based on careful measurement and trending of the actual results. Maintaining top management support is based on achieving these results. A focus on results is an important part of any P2 program.

The traditional approach involves the collection of results from the various P2 activities and placing them into reports that are prepared for each effort. Sometimes the results are plotted, such as reduction in the use or emissions of certain regulated chemicals. In some cases, financial savings are given.

The EMS approach requires procedures to monitor and measure environmental performance, to record information that tracks operational controls and conformance with the objectives and targets, and to evaluate compliance with environmental regulations. Top management reviews these results on a periodic basis.

In the quality-based P2 approach, results represent the most important element. It is weighted with nearly one-third of the total evaluation points provided in the seven categories. Results are segmented into three items: environmental results; customer, supplier, employee,

and other results; and financial results. The environmental results look at current levels and trends just as the other approaches do. The second segment of the results summarizes customer, employee, community, supplier, market, and other interested-party results within the context of the continual environmental improvement approach. In other words, how is their perception of your organization's environmental excellence changing? The third segment of the results summarizes the financial performance results related to the implementation of your continual environmental improvement approach.

The organization's results need to convey levels (the current level of environmental performance reported graphically), trends (multiple data points presented graphically), and comparative data (how your organization is performing with respect to similar organizations). It may take a few years to build strong results, but it is an important means of improving your organization's P2 program. The link between environmental and financial results is very important. All environmental results can be "translated" into financial results. This is the best means available to get and maintain top management leadership in the P2 program. Make establishing this connection a priority as you plan a new P2 program or seek to improve an existing one.

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INFORMATION AND ANALYSIS

It is necessary to examine how your organization uses information in order to identify and evaluate environmental aspects of products, services, or production processes. It is also important to determine how this information is used to assess service, product, or process performance and to identify areas for improvement (i.e., P2 opportunities) based on environmental considerations.

Most of the information in the traditional approach comes from assessments performed in the workplace. Checklists are often used to gather information for the analysis of each P2 project. Everything is usually handled on a project-by-project basis.

In the EMS approach, information is gathered on the aspects of the organization and analyzed on a general level to determine the significant environmental impacts and to set EMS objectives and targets. Further information is required for each of the environmental management programs. Documentation is maintained in the EMS to track information and make it available for analysis. This is an important element in the quest for continual environmental improvement.

In the quality-based P2 approach, information and the analysis of that information play a pivotal role in the program. The information and the results should be linked and used in the planning efforts. Management can use these items to make P2 a central issue in the day-to-day operation of the organization.

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In Box 8-3, there are some questions that may help determine how information is collected and analyzed in the P2 program.

Box 8-3. Questions to Ask About the Information and Analysis Component

How does your organization:

- Measure resource use efficiency and environmental losses?
- Determine environment, health, and safety requirements?
- Understand the true cost of a product, service, or production process?
- Determine the environmental impacts of a product, service, or production process through its life?
- Use information to document organization-wide environmental activities?
- Track your competitors' "green" trends and use this data in product design?
- Analyze information to prioritize areas for improvement?
- Use information and results to identify organization-wide areas for improvement (e.g., P2 opportunities)?
- Use comparative information to assess and improve its environmental performance (i.e., benchmarking)?
- Evaluate competitors and market trends in the formulation of its environmental strategies?

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For the program to be results-driven, there will have to be an organized means for managing information and analysis in your P2 program. The tools in Chapter 4 provide some order to the program and a good starting point. By selecting more items from the questions, you can drive continual improvement.

PROCESS MANAGEMENT

The traditional approach is project-based and does not place a great deal of emphasis on process. Assessments are used to locate opportunities for P2 and a project is set forth to minimize or prevent waste at that location. These assessments may not find other points at which the P2 opportunities can be leveraged. Furthermore, the assessments may not involve the institutionalization of P2 by changing the process of environmental management.

On the other hand, the EMS- and quality-based approaches emphasize process; both ask the type of questions that can be found in Box 8-4. A strong EMS is a vital component of the quality-based P2 approach and will help the organization attain a maximum number of points in this criterion.

Process mapping and resource accounting as described in Chapter 4 help measure and report the results of reducing your environmental impacts. The organization will benefit by addressing the issue of

process management when implementing the P2 Program. Using the Systems Approach tools will provide a head start in this direction.

Box 8-4. Questions to Ask About the Environmental Process Management Component

How does your organization:

- Conduct analysis of all pertinent processes to identify environmental issues (aspects)?
- Involve employees, customers, and suppliers in process analysis?
- Use its environmental management system to manage processes in day-to-day operations?
- Conduct process analysis of corrective actions or other nonoperational problem areas?
- Improve its process analysis system?
- Systematically prioritize areas for continual improvement?
- Develop action plans to improve processes?
- Involve employees, customers, and suppliers in identifying and implementing process improvements?
- Manage processes to meet or exceed environmental performance goals?
- Communicate information on improvement projects to ensure organizational learning?
- Use benchmarking as part of ongoing process improvement activities?
- Improve its process improvement system?

EMPLOYEE PARTICIPATION

All approaches include employee involvement. Both the EMS- and quality-based approaches address employee education and skill development. The quality-based approach also emphasizes employee satisfaction and well being. As more and more organizations address the issue of sustainable development and its focus on the social aspects of environmental issues, it will become more important to pay attention to the well being of the employees.

It is always informative to walk around a facility and randomly ask employees what they know about the organization's P2 program. Having a P2 policy statement hanging on the wall does not ensure that the employees will be able to participate effectively in the program. Whenever an organization undertakes a new management program, quite a bit of time is spent preparing the employees for participation in that program. It makes sense that the same would hold true for P2.

Box 8-5 lists some questions to ask about employee participation in a P2 program.

Employee involvement plays a key role in any successful P2 program, so it is important to be diligent in promoting it.

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Box 8-5. Questions to Ask About the Employee Participation Component

How does the organization:

- Assess employees' skills and determine and align their training needs to the continual environmental improvement approach?
- Promote employee input to the training program to improve environmental performance?
- Use the training program to encourage employees to share and disseminate the ethic of environmental excellence outside of the workplace?
- Assess and improve its environmental training program ?
- Involve employees in product, service, and process design for continual environmental improvement?
- Encourage and support broad employee involvement in P2 programs?
- Involve employees in the development of action plans and align human resources to implement action plans?
- Ensure that employees are up to date about the organization's P2 successes?
- Encourage employee participation to address specific community environmental issues?
- Consider the inside work environment (i.e., employee health and safety concerns) when designing work areas or making process improvement decisions?
- Gather input on the work environment from employees?
- Motivate and reward employee participation in the organization's environmental improvement program?
- Assist employees in dealing with life issues that can impact their ability to do work?
- Assess employee satisfaction?

FOCUS ON INTERESTED PARTIES

The EMS- and quality-based approaches clearly recognize the importance of having ties with regulators, customers, suppliers, and a host of other interested parties. The traditional approach provides for technology transfer, but it does not seek feedback on environmental concerns of the interested parties.

By addressing the questions asked in Box 8-6, your organization can move in the direction of involving interested parties in the P2 program. Some organizations have already begun to extend their EMS program to the supply chain. It is logical to extend this involvement to the P2 program as well. Customers need to see decisions regarding the products and services in light of what the environment, health, and safety implications may be throughout the life cycle. Other interested parties need to see how their actions affect the organization's ability to effectively implement and integrate P2 into its core business practices.

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Box 8-6. Questions to Ask About the Other Interested-Party Component

How does your organization:

- Communicate with customers to assess their needs and satisfaction regarding the environmental impact of products and services?
- Solicit and use customer feedback for environmental improvements?
- Work with customers to encourage effective product and environmental stewardship?
- Support the P2 and continual environmental improvement efforts of customers?
- Market “green” products, services, and processes?
- Develop markets for new and/or “greener” products and services?
- Involve suppliers, contractors, and vendors in the development and improvement of products, services, and processes as part of the continual environmental improvement program?
- Evaluate suppliers, contractors, and vendors for their environmental performance?
- Support the P2 or environmental improvement efforts of suppliers, consultants, contractors, and vendors?
- Work with oversight agencies to manage compliance in a mutually beneficial fashion?
- Communicate continual environmental improvement goals and action plans to interested parties to gain feedback, support, and buy-in?
- Develop systematic processes for timely reporting of reportable events/activities to appropriate interested parties?
- Work with oversight agencies to develop regulations and compliance approaches that encourage P2?
- Provide a regular, independent evaluation of successes made in the program?
- Communicate results to interested parties?

P2 cannot be thought of as a strictly internal matter. It is becoming much more important to consider other interested parties when conducting a P2 program.

GUIDING PRINCIPLES

Unlike the traditional approach, the EMS- and quality-based approaches seek to align the P2 program with the organization’s guiding principles or core values. Many experts feel that guiding principles are essential to the successful integration of P2 into core business practices. The guiding principles that are presented in Chapters 6 and 7 are as follows:

1. Interested-party–driven P2
2. Leadership
3. Continual improvement and learning

P2 cannot be thought of as a strictly internal matter. It is becoming much more important to consider other interested parties when conducting a P2 program.

4. Valuing employees
5. Fast response
6. Efficient product, service, and process design
7. Long-range view of the future
8. Management by fact
9. Partnership development
10. Public responsibility and citizenship
11. Results focus
12. Prevention of pollution
13. Compliance with legal requirements

The guiding principles are used to drive the P2 program's objectives and targets.

P2 PROGRAM ELEMENTS

The six program elements for a P2 program using any of the approaches have a number of now-familiar items:

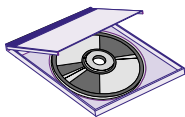
- Provide for top management support
- Characterize the process
- Perform periodic assessments
- Conduct program evaluations

Each of these items is covered in the implementation chapters (Chapters 5-8).

Two crucial program elements require consideration as you develop or seek to improve the P2 program. These are:

1. Maintaining a cost allocation system
2. Encouraging technology transfer

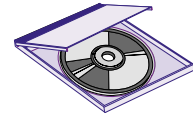
The importance of communicating with top management in financial terms is quite clear. It is important to determine the real cost of all resource use and loss in the process (including all ancillary and intermittent processes). It is important to translate environmental performance measured in volume and weight into financial terms. Some basic information on this topic can be found in Chapter 4. Additional material on this and on EPA's Environmental Accounting Project is available on the CD-ROM. The quality-based P2 approach scores the ability to evaluate costs effectively. In most cases, this evaluation is required to get and maintain top management approval for the program.



Technology transfer is very important to the propagation of P2. The Baldrige program requires winners of the award to go out and speak about what it takes to be successful with this program. Many winners give more than 100 speeches the year after they win. The EMS approach encourages organizations to mentor suppliers and contractors. Both approaches willingly share their successes so others can follow.

NOW IT'S YOUR TURN

This *Guide* has presented a number of useful P2 implementation approaches. It is up to your organization to use them and get started with a program that will work in your organization. The CD-ROM will provide you with the information needed to move forward.



This *Guide* was *not* written to provide a “one-size-fits-all” formula for starting or improving a P2 program. Its intention is to spark some ideas and provide tools that you can use to successfully complete your organization’s mission.

